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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

ELHILO, EISA B

ART UNIT PAPER NUMBER

1751

DATE MAILED: 10/02/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/836,703

Applicant(s)

KRAVTCHENKO ET AL.

Examiner

Eisa B Elhilo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6 & 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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Claims 1-53 are pending in this application.

### **DETAILED ACTION**

#### ***Claim Rejections - 35 USC § 103***

1 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lim et al. (US' 5,993,491) in view of Grollier et al. (US 4,842,849) and de la Mettrie et al. (WO' 99/17722).

Lim (US' 491) teaches a hair dyeing comprising 1-(4-aminophenyl) pyrrolidine compounds having formulae similar to the claimed formula when in the claimed formula (I) R1, R2 and R3 are hydrogen atoms as claimed in claims 1-3, 5 and 31, (see col. 4, formula 2), when in the claimed formula R1 and R3 are each hydrogen atom and R2 is a -CH<sub>2</sub>OH group as claimed in claim 6 (see col. 4, formula 1), when in the claimed formula R1 is hydrogen atom, R2 is a -CH<sub>2</sub>OH group and R3 is a hydroxyl group as claimed in claim 7 (see col. 4, formula 1a). Lim teaches the 1-(4-aminophenyl) pyrrolidine compounds in the amount of 0.01 to 10% by weight based on the total weight of the composition as claimed in claims 10-11 (see col. 7, lines 44-48). Lim also teaches a hair dyeing composition comprising from 0.1 to 10% of other oxidation bases such as p-phenylenediamines as claimed in claim 28, (see col. 7, lines 53-56), acid addition salts such as sulfate salt as claimed in claim 9 (see col. 3, lines 7-8), from 0.01 to

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10% of couplers such as m-phenylenediamine and 3-aminophenol as claimed in claims 24-27, (see col. 6, line 16 and col. 7, lines 49-51), from 0.1 to about 10% of nonionic surfactants of ethoxylated alcohols and decylpolyglucosides as claimed in claims 20, 38 and 39, (see col. 9, lines 35-38), anti-oxidants as claimed in claim 30 (see col. 8, line 37), from 1 to 15% of oxidizing agents such as hydrogen peroxide as claimed in claims 32, 34 and 35, (see col. 9, lines 9-14). Lim also teaches a hair dyeing composition having pH in the range of 5 to 11, which is within the claimed range (see col. 10, lines 7-9). Lim further teaches a method for dyeing hair comprising mixing the dyeing composition described above with the oxidant shortly before use and applying to the hair and at the end of coloring application (approximately 5 to 45 minutes), the composition is washed from the hair with ordinary water rinse followed by a shampoo as claimed in claims 40-47, (see col. 10, lines 24-55). Lim furthermore, teaches a dyeing composition provided in a kit or packaged form ready for mixing by the user as claimed in claims 48-53, (see col. 11, lines 1-10).

The instant claims differ from the reference by reciting a hair dyeing composition comprising dyeing ingredients such as cationic polymers, amine-containing silicones, enzymes as oxidizing agents and direct dyes.

Grollier (US' 849) teaches in analogous art a composition suitable for dyeing hair (see col. 13, lines 44-51). The composition comprises quaternary ammonium polymers such as cationic cyclic polymer of formula (III) which is similar to the claimed formula (II) as claimed in claim 1 (see col. 5, formula III), poly quaternary ammonium compounds of formula (IV) which is similar to the claimed formula (III) and also similar to the claimed formula (IV) when in the reference's formula, A represents polymethylene group containing from 2 to 20 carbon atoms

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and can contain inserted in the main chain one or more groups of  $-\text{CH}_2-\text{Y}-\text{CH}_2-$  wherein Y denoting  $-\text{NH}-\text{CO}-\text{NH}-$  and B represents one or more groups of  $-\text{CH}_2-\text{Y}-\text{CH}_2-$  wherein Y denoting  $-\text{O}$  atom as claimed in claims 1, 4, 12-16, (see col. 5, formula IV col. 6, lines 1-67 and col. 7 lines 1-31). Grollier teaches that the dyeing composition comprises from 0.01 to 10% of the cationic polymers as claimed 21-23, (see col. 25, 10-12).

De la Mettrie (WO' 722) teaches in another analogous art a hair dyeing composition comprising aminosilicone compounds such as cationic silicone polymers corresponding to the formula (II) wherein R is a monovalent group of formula  $-\text{C}_q\text{H}_{2q}\text{L}$  wherein q is chosen from a number ranging from 2 to 8 and wherein L is an optionally quaternized amine group chosen from groups similar to the claimed groups and when in the reference's formula is similar to the claimed formula (VII) (see page 5, formula II and page 6, lines 11-20), cationic silicone polymers of formulae (III) and (IV) which are similar to the claimed formulae (IX) and (VIII) as claimed in claims 17-19, (see page 7, formulae III and IV), enzyme of 2-electron oxidoreductase as claimed in claim 33, (see page 4, lines 26-29 and page 5, lines 4-6) and direct dyes (see page 16, line 16).

Therefore, in view of the teachings of the secondary references, one having ordinary skill in the art would have been motivated to modify the primary reference by using the quaternary ammonium polymers, aminosilicone, enzymes as oxidizing agents and direct dyes to make such a dyeing composition. Such modification would be obvious because one would expect that the use of quaternary ammonium polymers and aminosilicone compounds as conditioning agents with oxidizing enzymes and direct dyes as taught by Grollier and de la mettrie would be similarly useful and applicable to the analogous composition taught by Lim.

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***Allowable Subject Matter***

2 Claim 8 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record does not teach, disclose or suggest a hair dyeing composition comprising oxidation dye of the claimed formula (I) wherein R1 and R3 are each a hydrogen atoms and R2 is a -CONH2 group.

***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eisa B Elhilo whose telephone number is (703) 305-0217. The examiner can normally be reached on M - F (7:30-5:00) with alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (703) 308-4708. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
Elhilo

September 24, 2002

  
YOGENDRA N. GUPTA  
SUPERVISORY PATENT EXAMINER  
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